

12 March 2006

**TO:** Dr. Peter Plage, USF&WS, Colorado Field Office, P. O. Box 25486, DFC (MS 65412), Denver, CO 80225; [peter\\_plage@fws.gov](mailto:peter_plage@fws.gov)  
**FR:** Douglas A. Kelt, Professor of Wildlife Biology, Dept. of Wildlife, Fish, & Conservation Biology, University of California, Davis  
**RE:** Revised review of documents pertaining to delisting of Preble's meadow jumping mouse (*Zapus hudsonius preblei*).

Dear Dr. Plage,

In June 2005 I provided a review of documents available pertaining to the proposed delisting of Preble's meadow jumping mouse, *Zapus hudsonius preblei*. Since then, one of the documents available at that time was revised moderately and published (Ramey et al. 2005), and another study (King et al. ms) has become available; I had read the Ramey et al. report in preparing my earlier comments, but the King et al. ms was not available at that time. These two documents address the question of the taxonomic status of Preble's meadow jumping mouse, but come to strikingly different conclusions. Indeed, the differences appear to be a strong reminder that science is always a work in progress; additionally, it is a cautionary note on the perils of making decisions when the "best available information" is insufficient for the decision at hand! Whereas Ramey et al. concluded that *Z. h. preblei* did not meet their criteria for a distinct taxonomic entity, King et al. conclude that the best available data *strongly* support recognition of this subspecies.

In June 2005, after studying the Ramey et al. report, along with other materials available at the time, I concluded that "the available data do not appear supportive of the taxonomic distinctiveness of *Z. h. preblei*, but it is not clear that further data . . . might not lead to different results." Additionally, I noted that "the 'best available information' does not support distinguishing *Z. h. preblei*, but the 'best available information' appears slightly limited."

Thank you for inviting me to review the King et al. report and to revise my assessment on the possible delisting of this taxon given this new information. My current view is that I was both right and wrong in my earlier assessments: I was right in speculating that further data might yield very different results, but I was very much wrong in thinking that "the 'best available information' was slightly limited." Given the power of hindsight, these data appear to have been *grossly* insufficient, and the vastly more comprehensive stuffy by King et al. completely resolves, in my mind, the issue of the evolutionary distinctiveness of *Z. h. preblei*. **I now strongly support the continued listing of this entity**, at least until the taxon-wide comprehensive analyses that King et al. call for are available. I strongly suspect that such a taxon-wide study will only strengthen the conclusions presented by King et al. Given the King et al. report, I feel it would be entirely negligent to delist this taxon at this time.

In your cover letter you asked me to address two questions.

- 1. Do you support the conclusion that the best scientific and commercial information available indicates that Preble's is not a discrete taxonomic entity?"**

**2. Could you support finalizing the proposal to delist Preble's based on the information currently available?**

In my deliberations I reviewed Ramey et al. (2005), I read King et al. (ms), and I reviewed the reviews by colleagues of the King et al. report. I reviewed these reviews because I am not a geneticist or a systematist, and I am not trained in the methods of molecular systematics; rather, I am a community and geographical ecologist, whose research for the past 20 years has focused on small mammals in both North and South America. Thus, I wanted to "hear" the views of these reviewers, most of whom I have known for many years; as a unit, their insights helped me to assess the strengths and weaknesses of these two reports (Ramey et al. vs. King et al.), and to come to what I consider a clear and uncontestable conclusion.

Although I suspect that my responses to these questions are clear from the introductory comments, I will address these below, with some additional commentary.

**Qtn. 1. Do the data indicate that Preble's is not a discrete taxonomic entity?**

At the very least, the existing data suggest that Preble's *IS* a discrete and independent taxonomic entity. Further studies might undermine the conclusions raised by King et al., but the sampling used by these authors was much more thorough and comprehensive than that in Ramey et al. According to reviews of these manuscripts by colleagues who are better versed than I in the mechanics of taxonomic and systematic research, the methods and the analyses employed were superior to those of Ramey et al. Thus, the best available data (i.e., King et al.) strongly and unambiguously supports the distinctiveness of Preble's meadow jumping mouse.

**Qtn. 2. Could I support delisting Preble's?**

In June 2005 I wrote "the available morphological and genetic data provide no strong support for recognizing *Z. h. preblei* as a taxonomic entity, and I believe they suggest that this taxon is indeed not distinct from other populations of *Z. hudsonius*. Consequently, I would support delisting *Z. h. preblei* under the current circumstances."

With the availability of the King et al. study, the circumstances have changed dramatically. Given the current available information, **I strongly oppose delisting this entity**. To do so at this point would be unethical at best, and possibly criminal at worst.

Thank you for providing me the opportunity to comment on this issue, and to see such a clear example of both science and policy in action. I don't know that it is often that studies surfacing within a year of each other not only yield different conclusions but have such dramatically different implications. This appears to be one such case, however, and I applaud the USF&WS for striving to maintain the highest standards when debating such important questions as the listing or delisting of a species.